CHAPTER I
INTRODUCTION

1.1 Background

Fiber is one of the important nutrients that human need, it has several health benefits such as helps maintain bowel health, lower cholesterol levels, and reduce the risk of heart diseases and cancer (Gropper and Smith, 2012). The research conducted by Puslitbang Departemen Kesehatan (Depkes) RI (2001) show the average fiber consumption by Indonesian people are around 10.5 gram per day, while the minimum fiber consumption is 20 gram per day (Spiller, 2001).

Mushroom has been cultivated since long time ago as a food source, it is very nutritious, rich in protein and some species also provide health benefit towards human during consumption. However not all mushroom have positive impact for human, some species probably contain toxin which is harmful for consumption (Miles, and Chang, 2004).

Ear mushroom is a mushroom that is well known and commonly consumed in Indonesia. There are many varieties of ear mushroom that can be found in Indonesia. Black ear mushroom (*Auriculaira polytricha*) is one of the types that usually consume in Indonesia. According to Manjutan *et al.* (2011) *Auricularia polytricha* contains a high amount of fiber which is around 21.97%. Black ear mushroom also well known for its anti-cholesterol effects (Bessette & Alan, 1993). Yang *et al.* (2002) stated that *Auricularia polytricha* contains
hypolipidemic agent that can reduce the amount of the plasma LDL cholesterol. The hypolipidemic agent of this mushroom comes from branched galactomannan, which comprised of galactose and mannose (Yang et al., 2002).

Black ear mushroom is an edible mushroom that have gelatinous, firm and crunchy texture and usually sold in the dried form. The utilization is still just cooked and consumed in a Chinese cuisine or utilized as traditional medicine. (Bessette and Alan, 1993). The development of high fiber drink can be a new alternative products that can increase the consumption of black ear mushroom.

1.2 Research problem

Black ear mushroom is a good source of dietary fiber. However, the utilization of this mushroom only limited for cooking, and boiled as traditional medicine. Fiber drink is one of the possible food products that can increase the consumption of black ear mushroom. The aroma, flavor and mouthfeel derived from the mushroom are undesirable for some people. Therefore this research is aimed to develop an acceptable mushroom fiber drink.

1.3 Objectives

1.3.1 General Objectives

This research was aimed to develop an acceptable mushroom fiber drink.

1.3.2 Specific Objectives

1. To determine the effect of different concentration of mushroom powder and CMC towards the consumer acceptance of mushroom fiber drink
2. To determine the effect of different concentration of mushroom powder and CMC towards the physical and chemical characteristic of mushroom fiber drink.

3. To analyze the nutritional composition of the mushroom fiber drink.